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TECHNICAL BULLETIN

ALPHA® RMA-390-DH6 Paste Flux

Rosin-Based Paste Flux

DESCRIPTION

ALPHA RMA-390-DH6 is a rosin-based paste flux designed for surface mount and other demanding electronic assembly applications. Because of its unique activator package and other special additives, **ALPHA RMA-390-DH6** is suitable to remain on the circuit board without cleaning. **ALPHA RMA-390-DH6**'s activator system also enables the flux to penetrate even moderately tarnished surfaces.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES AND BENEFITS

- **Wide Reflow Profile Window:** allows best quality solderability of complicated, high-density PWB assemblies in both air and nitrogen reflow, using straight ramp or soak profiles up to 300 °C.
- **Excellent Solder Joint and Flux Residue Cosmetics:** after reflow soldering even using long/high thermal soaking without charring or burning.

PRODUCT INFORMATION

Packaging Sizes:	10cc syringe, 30cc syringe, & 125 gram jar
Environmental Compliance:	Complies with RoHS Directive 2011/65/E

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APPLICATION GUIDELINES

ALPHA RMA-390-DH6 Paste Flux may be applied by screen printing or pin transfer (substrate) or doctor blade / dip coating (package). It can also be dispensed.

ALPHA RMA-390-DH6 can be safely left on the circuit board after reflow without cleaning. If cleaning is desired, most commercially available electronic assembly cleaning solvents are effective. Flux residues are also removable by saponification with ALPHA 2110 in water.

TECHNICAL DATA

Category	Results	Procedure/Remarks
Chemical Properties		
Activity Level	ROL0	IPC J-STD-004
Cu Mirror Corrosion Test	**Pass**	IPC J-STD-004
Halide Content	**Halide - Free**	Based on Formulation
Electrical Properties		
SIR (Bellcore 96 hours @ 35 °C / 85%RH)	**Pass**, 2.5 x 10^{11} ohms	Bellcore GR78-CORE (Pass ≥ 1 x 10^{11} ohms)
Electromigration (Bellcore 500 hours @ 65 °C / 85%RH 10V)	**Pass,** 2.2 x 10^{10} ohms	Bellcore GR78-CORE (Pass=final > initial/10)
IPC SIR (7 days @ 85 ° C /85% RH)	**Pass,** 1.1 x 10^{9} ohms	IPC J-STD-004A (Pass > 10^{8})
HP Electrochemical Migration (28 days @ 50 °C/90%RH 10V)	**Pass**	HP ECM
Physical Properties		
Color	Smooth, Amber Paste	
Viscosity (5rpm at 25 °C by Malcom Viscometer)	110 to 400 Poise (Typical)	
Fineness of Grind (μm)	<10 μm	

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REFLOW PROFILES

Figure 1: Typical 63Sn37Pb Reflow Profile

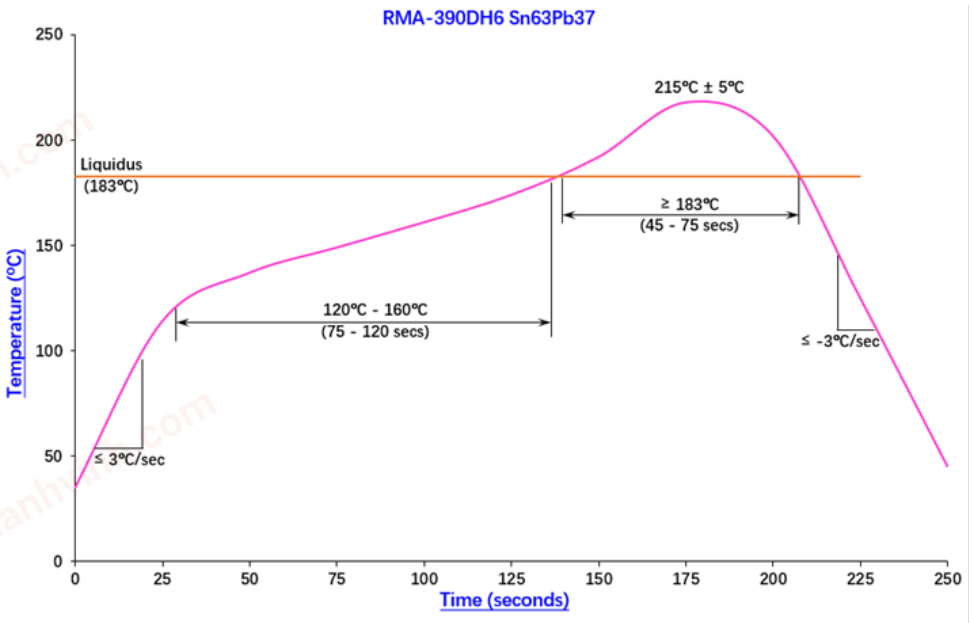
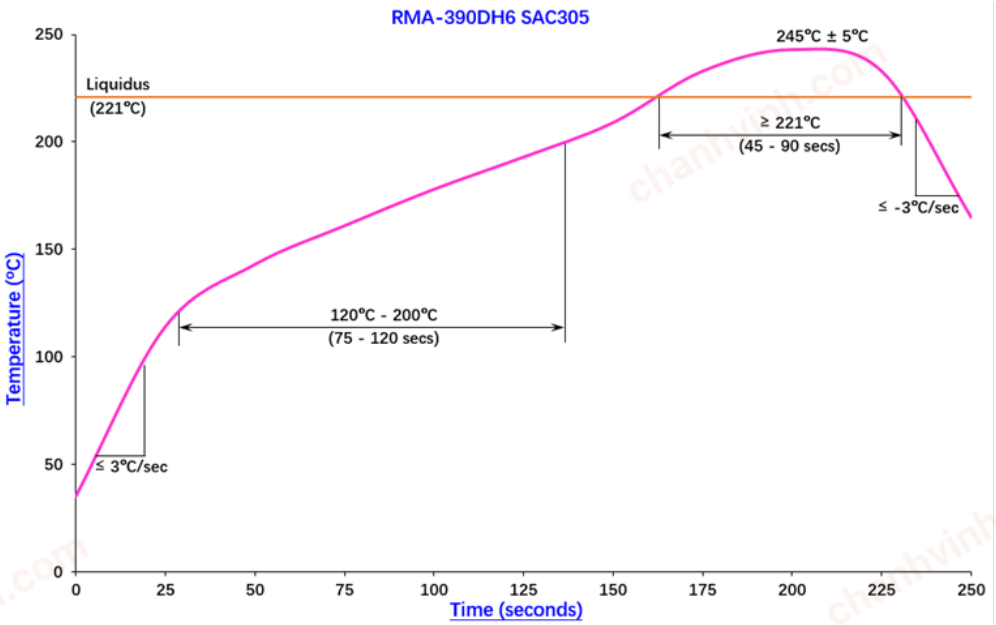


Figure 2: Typical SAC Reflow Profile



Note: These profiles were tested in the lab with acceptable reflow and coalescence performance, optimization to each board application should still be carried out by users to ensure best results.

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RECYCLING SERVICES

We provide safe and efficient recycling services to help companies meet their environmental and legislative requirements and at the same time, maximize the value of their waste streams.

Our service collects solder dross, solder scrap, and various forms of solder paste waste. Please contact your local sales representative for recycling capabilities in your area or link here.



SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available at MacdermidAlpha.com/assembly-solutions/knowledge-base.**

STORAGE

ALPHA RMA-390-DH6 is shipped in thermally controlled boxes and should be stored room temperature upon receipt at 66 to 77 °F (19 to 25 °C). This will be sufficient to maintain a nominal shelf life of twelve months. ALPHA RMA-390-DH6 should be permitted to reach room temperature before unsealing its package prior to use.

CONTACT INFORMATION

www.macdermidalpha.com

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE . Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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